RHYAS®
THE PRODUCTS OF CHOICE

COMBITOOL 160W

CTM4001

Original Instructions

CE

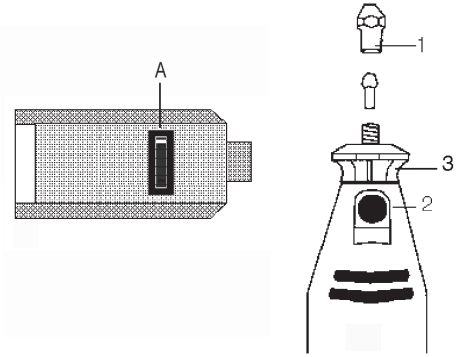


Fig. 1

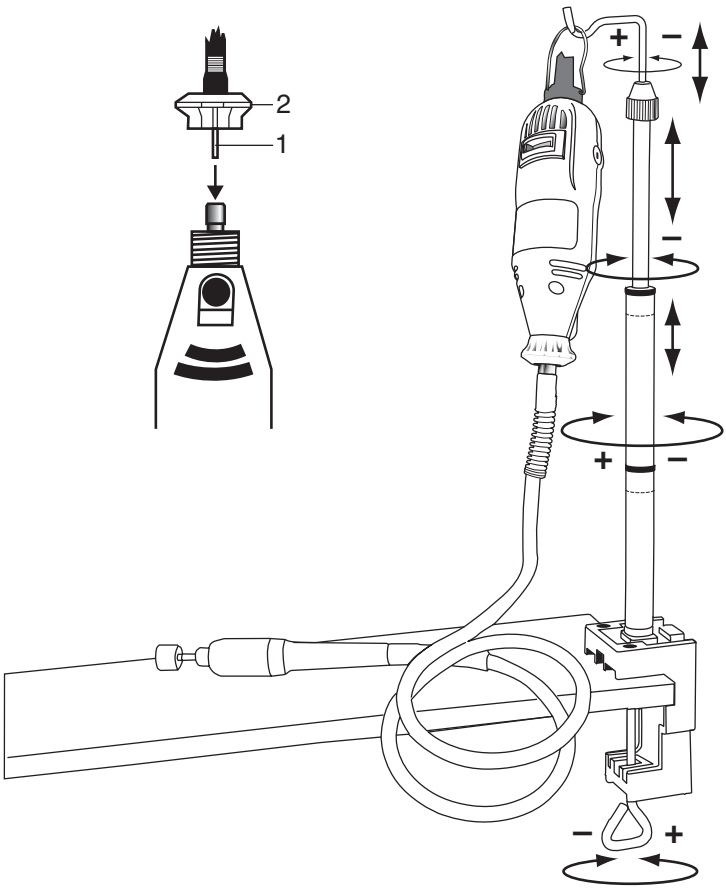


Fig. 2

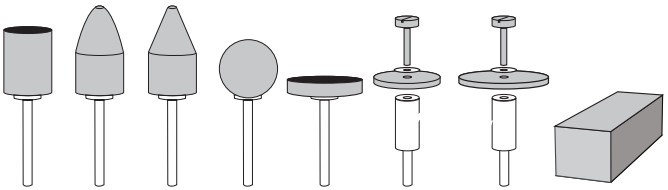


Fig. 3

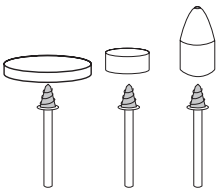


Fig. 4

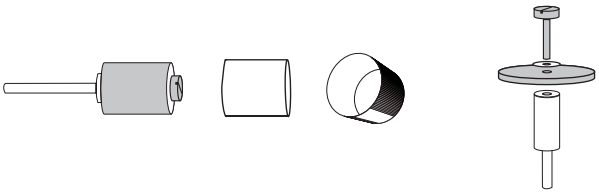
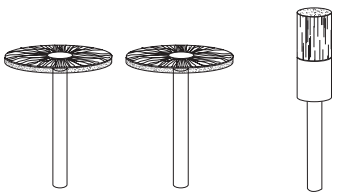


Fig. 5



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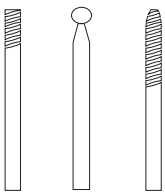


Fig. 7

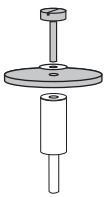


Fig. 8

COMBITOOL CTM4001

Thank you for buying this Rhyas product.
By doing so you now have an excellent product, delivered by one of Europe's leading suppliers. All products delivered to you by Rhyas are manufactured according to the highest standards of performance and safety. As part of our philosophy we also provide an excellent customer service, backed by our comprehensive warranty. We hope you will enjoy using this product for many years to come.

The numbers in the following text refer to the pictures on page 2-3

Read the operating instructions carefully before using this device. Familiarise yourself with its functions and basic operation. Service the device as per the instructions to ensure that it always functions properly. The operating instructions and the accompanying documentation must be kept in the vicinity of the device.

Contents

1. Machine data
2. Safety instructions
3. Assembly of accessoires
4. Mounting the flexible shaft and stand
5. Maintenance

1. Machine data

Technical specifications

Voltage	230 V
Frequency	50 Hz
Power consumption	160 W
No load speed	15.000 - 35.000/min
Capacity of spring chuck	3.2 + 2.4 mm
Weight	0.6 kg
Lpa (Sound pressure level)	70+3 dB(A)
Lwa (Sound power level)	83+3 dB(A)
Vibration	1.7+1.5 m/s2

Vibration level
The vibration emission level stated in this instruction manual has been measured in accordance with a standardised test given in EN 60745; it may be used to compare one tool with another and as a preliminary assessment of exposure to vibration when using the tool for the applications mentioned.

- using the tool for different applications, or with different or poorly maintainted accessories, may significantly increase the exposure level.
- the times when the tool is switched off or when it is running but not actually doing the job, may significantly reduce the exposure level.

Protect yourself against the effects of vibration by maintaining the tool and its accessories, keeping your hands warm, and organizing your work patterns.

Package contents

1 Combitool
1 Flexible shaft
1 Stand
1 Spring chuck spanner
40 Accessories
1 Case
1 Instructions for use
1 Safety section
1 Guarantee card

Check first whether or not the delivery has been damaged by transport and/or whether all the parts are present.

2. Safety instructions

Explanation of symbols

Denotes risk of personal injury, loss of life or damage to the tool in case of non-observance of the instructions in this manual.

Indicates the presence of an electrical voltage.

Variable speed control.

Wear ear and eye protection.

Wear a dust mask.

Special safety instructions
- Always keep the cord away from the moving parts of the machine.
- In the case of locking, switch the machine off immediately and remove the plug from the mains.
- Compare the maximum number of revolutions allowed of the accessories with the number of revolutions of the machine.
- When you put the machine away the engine must be switched off and moving parts must have reached a standstill.
- Never attach an assembly spanner to your machine with a piece of string or anything similar.
- Never use the axle locking button if the machine is operating.
- Make sure that the spring chuck diameter is the same as the axle diameter of the accessory.
- Use a clamping device for securing the work piece.
- Keep your hands away from the work piece.

Electrical safety
When using electric machines always observe the safety regulations applicable in your country to reduce the risk of fire, electric shock and personal injury. Read the following safety instructions and also the enclosed safety instructions.

Always check that the power supply corresponds to the voltage on the rating plate.

Your machine is double insulated, therefore no earthwire is required.

Replacing cables or plugs
If the mains cable becomes damaged, it must be replaced with a special mains cable available from the manufacturer or the manufacturer's customer service. Dispose of old cables or plugs immediately after replacing them with new ones. It is dangerous to connect the plug of a loose cable to a socket.

Using extension cables
Only use an approved extension cable suitable for the power input of the machine. The minimum conductor size is 1.5 mm^2. When using a cable reel always unwind the reel completely.

3. Assembly of accessories

Before assembly always remove the plug from the mains.

Warning! Change accessories by inserting an accessory into the collet (or chuck) as far possible to minimize run out and unbalance.

Assembly of accessories
Fig. 1
Press down the axle locking button (2) and hold it down. Using the spring chuck spanner you can undo the spring chuck (1). Put the accessory in its place. Hold down the axle locking button when you fasten the spring chuck with the spring chuck spanner.

Operation
Switch on the machine by engaging the on/out switch (A) By adjusting the adjusting wheel (B) you can regulate the speed of the Combitool. Do not put the machine down when the motor is still running. Do not place the machine on a dusty surface. Dust particles may enter the mechanism.

Too high a load at a low speed of the Combitool can burn out the engine.

4. Mounting the flexible shaft and stand

Flexible shaft
Fig. 2
Screw the black ring off the chuck and remove it. Mount the flexible shaft on the Combitool, placing the inner shaft (1) in the chuck. The black ring of the flexible shaft (2) can then be fastened onto the Combitool.

Never operate the axle locking button if the engine is still rotating.

Stand for the Combitool
- Mount the stand on the side of a workbench or worktop with a maximum thickness of 55 mm.
- The height of the stand is adjustable. Loosen the top tube of the stand by turning it anticlockwise. Draw the tube out to its maximum height and secure it by turning the

tube clockwise. The height of the suspension bracket is adjustable by loosening the black knob. After adjusting the suspension bracket to the correct height, retighten the knob.
- Attach the Combitool to the suspension bracket of the stand; this suspension bracket can be turned 360°.

Accessories for the Combitool
Rhyas does not deliver spare accessories for the Combitool. The Combitool is designed to use the standard accessories of Dremel, Black & Decker, Bosch or Proxxon. Always check that the maximum rpm of the accessory is suitable for the maximum speed of the Combitool.

Grinding stones
Fig. 3
When using a grinding stone the first time, use the dressing stone to balance it. The dressing stone can also be used for cleaning the surface or to give the grinding stone a special shape.

Material	Speed setting
Stone, shell	-
Steel	+
Aluminium, brass	+ -
Plastic	-

Felt wheels and tip
Fig. 4
The felt wheels or tip should be screwed on the mandrel.

Material	Speed setting
Steel	+
Aluminium, brass	+ -
Plastic	+

Sanding bands and disc
Fig. 5

Material	Speed setting
Wood	+ +
Steel	-
Aluminium, brass	+ -
Plastic	-

Stainless steel brushes and bristle brush
Fig. 6

Material	Speed setting
Stone, shell	+ -
Aluminium, brass	+ -

High speed cutter, Diamond wheel point and Drill
Fig. 7

Material	Speed setting
Stone, shell	Max
Steel	+ -
Aluminium, brass	+ +
Plastic	-

Abrasive disc
Fig. 8

Material	Speed setting
Steel	+
Aluminium, brass	+ -
Plastic	-

5. Maintenance

Make sure that the machine is not live when carrying out maintenance work on the motor.

This machine has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper machine care and regular cleaning.

Cleaning
Keep the ventilation slots of the machine clean to prevent overheating of the engine. Regularly clean the machine housing with a soft cloth, preferably after each use. Keep the ventilation slots free from dust and dirt. If the dirt does not come off use a soft cloth moistened with soapy water. Never use solvents such as petrol, alcohol, ammonia water, etc. These solvents may damage the plastic parts. Please clean the tool immediately after use.

Lubrication
The machine requires no additional lubrication.

Faults
Should a fault occur, e.g. after wear of a part, please contact the service address on the warranty card. In the back of this manual you find an exploded view showing the parts that can be ordered.

Environment
To prevent damage during transport, the appliance is delivered in a solid packaging which consists largely of reusable material. Therefore please make use of options for recycling the packaging.

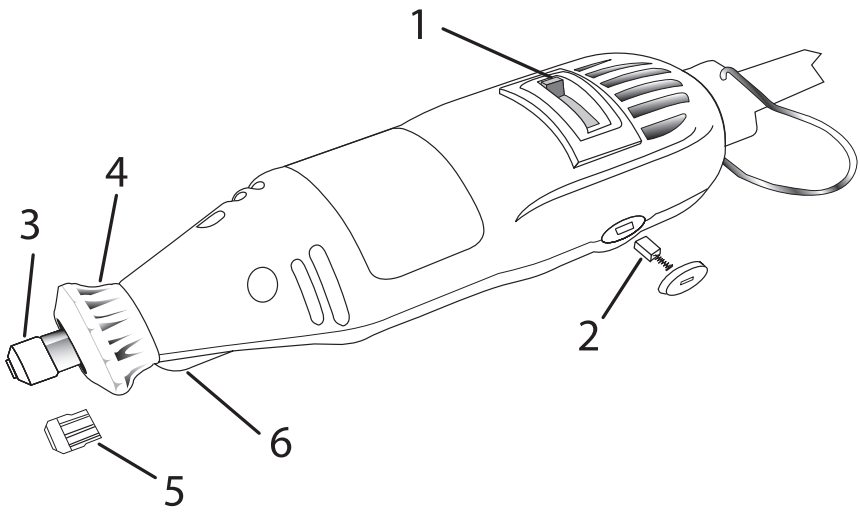
Damaged and/or disposed of electrical or electronic devices must be dropped off at recycling stations intended for that purpose.

Warranty
Read the warranty conditions on the separately supplied warranty card.

The product and the user manual are subject to change. Specifications can be changed without further notice.

Spare parts list

Position	Description	No.
406894	Switch	1
406895	Carbon brush (set)	2
406896	Collet nut	3
406709	Ring	4
406683	Collet chuck 3.2 MM	5
406684	Collet chuck 2.4 MM	5
406897	Spindle lock	6
406708	Flexible shaft	-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3
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GENERAL SAFETY INSTRUCTIONS

Warning!
Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term “power tool” in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool. Save these instructions.

1) Work area

a. Keep work area clean and well lit. Cluttered and dark areas invite accidents.
b. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gasses or dust. Power tools create sparks which may ignite the dust of fumes.
c. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2) Electrical safety

a. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs which earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
b. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
c. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
d. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
e. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock. Always use tool in conjunction with a residual circuit breaker device.

3) Personal safety

a. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
b. Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
c. Avoid accidental starting. Ensure the switch is in the off position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
d. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
e. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
f. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
g. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust related hazards.
h. Use clamps or a vice to hold work. It’s safer than using your hand and it frees both hands to operate tool.

4) Power tool use and care

a. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
b. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
c. Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
d. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
e. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
f. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
g. Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from intended could result in hazardous situation.

h. Damaged switches must be replaced at a customer service repair centre. Do not use power tools that cannot be switched on and off.
i. Do not leave power tools unattended while they are switched on. Always switch off the tool and wait until it has come to a full standstill before leaving.
j. If the mains cable has been damaged, it must be replaced with a special mains cable. These can be obtained from the manufacturer or the manufacturer's customer service department. The mains cable may only be replaced by the manufacturer, the manufacturer's customer service department or equally qualified persons.

5) Battery tool use and care

a. Ensure the switch is in the off position before inserting battery pack. Inserting the battery pack into power tools that have the switch on invites accidents.
b. Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
c. Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
d. When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns of a fire.
e. Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritations or burns.

6) Service

a. Please use a qualified expert who uses original replacement parts to repair your power tool. This will ensure proper functioning of the power tool.
b. Caution! The use of any accessories or additional tools other than those recommended in this manual may lead to an increased risk of injury. Only use original replacement parts.

CE

DECLARATION OF CONFORMITY
CTM4001

(EN) We declare under our sole responsibility that this product is in conformity with directive 2011/65/EU of the European parliament and of the council of 9 June on the restriction of the use of certain hazardous substances in electrical and electronic equipment is in conformity and accordance with the following standards and regulations:

EN 55014-1, EN 55014-2-16, EN 51044-1, EN 50144-2, EN 61000-3-2, EN 61000-3-3

2006/42/EC, 2006/95/EC, 2004/108/EC, 2002/96/EC, 2006/95/EC

Zwolle, 01-05-2014

W. Dekens
CEO Mactool Industrial BV

It is our policy to continuously improve our products and we therefore reserve the right to change the product specification without prior notice.

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